December 11, 2003

VIA EMAIL ONLY

RE: I/M/O the Petition of New Jersey-American Water Company, Inc. for an Increase in Rates for Water and Sewer Service and Other Tariff Modifications
BPU Docket No. WR03070511
OAL Docket No. PUCRL 07279-2003N

TO SERVICE LIST MEMBERS:

Enclosed please find the electronic copies of the direct testimonies of the Division of the Ratepayer Advocate's witnesses, Robert J. Henkes, James A. Rothschild, Barbara R. Alexander, Howard J. Woods, and Brian Kalcic, in connection with the above referenced matter.

Should you require anything further, please do not hesitate to contact our office.

Very truly yours,
SEEMA M. SINGH, ESQ.
RATEPAYER ADVOCATE

By: _____
Robert J. Brabston, Esq.
Deputy Ratepayer Advocate

RJB/slc

BEFORE THE
STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
OFFICE OF ADMINISTRATIVE LAW

In the Matter of:

THE PETITION OF NEW JERSEY-AMERICAN WATER COMPANY, INC. FOR AN INCREASE IN RATES FOR WATER AND SEWER SERVICE AND OTHER TARIFF MODIFICATIONS	**BPU Docket No. WR03070511** **OAL Docket No. PUCRL 07279-2003N**

DIRECT TESTIMONY

AND EXHIBITS

OF

HOWARD J. WOODS, JR., P.E.

On Behalf of the New Jersey
Division of the Ratepayer Advocate

December 1, 2003

New Jersey-American Water Company, Inc.
BPU Docket No. WR03070511
Direct Testimony of Howard J. Woods, Jr., P.E.

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I. STATEMENT OF QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Howard J. Woods, Jr. and my address is 138 Liberty Drive, Newtown, Pennsylvania 18940-1111.

Q. BY WHOM ARE YOU EMPLOYED?

A. I am an independent consultant and the Division of the Ratepayer Advocate has engaged me in this matter.

Q. **PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL QUALIFICATIONS.**

A. I hold a Bachelors of Civil Engineering Degree from Villanova University (1977) and a Master of Civil Engineering Degree with a concentration in water resources engineering also from Villanova University (1985). I am a registered professional engineer in New Jersey, New York, Maryland, Pennsylvania and New Mexico. I am an active member of the American Society of Civil Engineers, the National Ground Water Association, the American Water Works Association, the Water Environment Federation and the International Water Association.

Q. HAVE YOU PROVIDED TESTIMONY IN MATTERS ASSOCIATED WITH WATER AND SEWER SERVICE AND RATES ON PRIOR OCCASIONS?

A. Yes. I have testified in numerous rate setting proceedings and quality of service evaluations in matters before the Public Utility Commissions in New Jersey, New York, Connecticut and Kentucky. In addition, I have provided expert opinions in generic hearings related to water resource planning and drought management in New Jersey and Delaware. These hearings were sponsored by the respective utility commissions in these jurisdictions.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

A. From October 1977 through October 1981, I worked with the U.S. Environmental Protection Agency's Region III Water Supply Branch. In this position I developed system surveillance programs, evaluated the sanitary integrity of existing water supply facilities, provided technical assistance to water suppliers and engineers in regard to water treatment and the construction, operation and maintenance of water supply facilities. I recommended treatment techniques and the addition of sanitary facilities to municipal and investor owned utilities, coordinated emergency responses to cases of water supply contamination and was individually responsible for the implementation of the Safe Drinking Water Act in a 14 county area of Pennsylvania.

From October 1981 through May 1983, I worked as a project engineer for the engineering firm of Johnson, Mirmiran and Thompson, P.A. of Silver Spring, Maryland. While working for this firm I designed numerous water supply systems wastewater treatment and conveyance systems and storm drainage facilities. I investigated the suitability and condition of various existing water supply systems

and developed comprehensive facility plans for a number of the firm's clients. In this position I functioned as a project engineer responsible for defining and carrying out engineering work necessary for the timely and accurate completion of design projects. As a client's representative, I also bid projects involving the construction of facilities using construction documents I prepared for the client. These were for new projects as well as for projects requiring the renovation of existing facilities.

From May 1983 through November 1984, I served as Director of Engineering for American Water Works Service Company's Eastern Division. In this position I directed the long-range planning and design functions of New York-American Water Company and New Jersey-American Water Company. I supervised the execution of engineering projects related to the design, construction, operation and maintenance of company water and sewer facilities. In this position, I was responsible for the successful completion of an annual construction budget of approximately $15 million and a facility maintenance budget of approximately $10 million. This work included the maintenance and renovation of wells in Burlington and Camden Counties and the construction of new wells in Atlantic and Warren Counties. I evaluated facilities, prepared or directed the preparation of engineering designs, pre-qualified bidders, solicited bids, and served as the Company's representative in managing construction and maintenance projects. I had authority to review and execute change orders on construction projects when actual field conditions were found to differ from anticipated conditions.

From November 1984 through December 1985, I served as Manager of Operations for the Eastern Division of American Water Works Service Company. In this position I supervised all aspects of engineering, water quality, materials management and risk management for the Company's Eastern Division. This included the Company's operations in New York and New Jersey. I managed a $120 million maintenance and operations budget and a $20 million construction budget. I directed the procurement of engineering design services and construction services on approximately sixty major capital projects and hundreds of smaller maintenance and repair projects. During this period, I was responsible for the rehabilitation of the Company's Canoe Brook Well Field in Millburn, New Jersey. I also completed nearly $3 million in renovation work at Company wells in Burlington and Camden Counties.

From December 1985 through August of 1988, I served as System Director of Planning for American Water Works Service Company. In this position I directed the development of strategic and comprehensive plans for all American System companies located throughout the country through a staff of engineers and technical personnel working under my direction. I evaluated the suitability of existing source, treatment and distribution facilities, wastewater conveyance and treatment facilities and made long range projections concerning the need for new facilities or operational modifications to existing facilities.

In the next three assignments with American Water Works Company, I directed operations and maintenance budgets that averaged $150 million per year and capital budgets that ranged from $30 million to $120 million per year for the

Company's operations in New Jersey, New York and Connecticut. Engineering designs were prepared under my direction. I directed the competitive bidding of capital and maintenance projects. The largest of these was the design and construction of the Delaware River Regional Water Treatment Plant; a $192 million treatment plant and pipeline system that now serves much of Burlington, Camden and Gloucester Counties.

From August 1988 through April 1989, I served as Regional Manager of Engineering for American Water Works Service Company's Eastern Region. In this position I developed engineering goals and objectives for each of the Company's operating systems in Connecticut, New York and New Jersey. I analyzed operating reports to determine the status of all phases of engineering, administration, planning, design and construction necessary to meet the Company's goals and objectives in providing safe, adequate and proper water supply service.

From April of 1989 to July 1993, I served as Regional Manager of Operational Services for American Water Works Service Company's Eastern Region. In this position I was responsible for the provision of administrative, engineering, loss control, resource conservation and water quality services required by the operating companies in the Eastern Region. In this position I directed water company operations to assure compliance with approved operating and maintenance budgets, capital construction programs, long range corporate and comprehensive plans, risk exposure reduction, safety and loss control procedures, water conservation programs and water quality objectives. In this position I also

served as Vice President of New Jersey-American Water Company, Connecticut-American Water Company and New York-American Water Company.

From July 1993 through May 1997, I served as Vice-President of New Jersey-American Water Company. In this position, I served as chief operations officer for the Company. I was responsible for all operations functions including production, distribution, maintenance services and commercial services. I directed a staff of 450 management and unionized employees. These responsibilities included the maintenance of over 150 wells located throughout New Jersey, several large surface water treatment facilities, nearly 100 distribution storage tanks and approximately 4,000 miles of water distribution mains. I was also responsible for the Company's sanitary sewer operations. These facilities were composed of several hundred miles of pipe and numerous pump stations. I planned and directed work required to maintain these facilities in peak operating performance. This work included electrical and mechanical maintenance associated with pumping equipment and controls.

In June of 1991, I was appointed by Governor Florio to serve as the investor-owned water supplier representative on the New Jersey Water Supply Advisory Council. The Council advises the New Jersey Department of Environmental Protection ("NJDEP," formerly the New Jersey Department of Environmental Protection and Energy") on a wide range of water supply issues such as water quality, facility construction requirements, statewide water supply planning and water supply management. Governor Whitman reappointed me to the Council 1994 and I served through mid 1997.

From May of 1997 through July 2000, I directed the acquisition and business development activities of American Water Works Service Company and a joint venture operation of the Company known as AmericanAnglian Environmental Technologies. I directed the development of bids on operations and maintenance contracts to operate municipally owned water and wastewater systems. I reviewed contract documents and directed a staff of engineers and analysts in preparing responsive bids and proposals for prospective municipal clients. In 1999, my team returned the second best business development performance in the United States and we won the largest operations and maintenance contract awarded that year (Scranton Sewer Authority, Scranton, Pennsylvania). I also directed the operations of the joint venture. This business unit was the seventh largest private municipal water and wastewater contractor in the United States. I directed the maintenance and operations functions of over 175 contracts dedicated to the operation of municipal water and wastewater utilities and industrial and commercial clients.

Since July 2000, I have worked as an independent consultant. Representative clients include the New Jersey Division of the Ratepayer Advocate, the Delaware Public Advocate, Passaic Valley Water Commission, Consumers New Jersey Water Company, PricewaterhouseCoopers LLP, BOC Gases Inc., the Pittsburgh Water & Sewer Authority/U.S. Water L.L.C., Upper Dublin Township (PA) and the Elmira (NY) Water Board.

I directed and managed the procurement process leading to the sale of a municipal wastewater system in Southeastern Pennsylvania. The Upper Dublin

Township Sanitary Sewer System sold for $20,000,000. This system serves approximately 8,000 connections and has annual revenues of $3,000,000. I advised the Township on alternative outsourcing and contracting approaches, reduced interim operating expenses by 30% by renegotiating the plant operations contract prior to the sale of the system.

I completed an energy management evaluation for the Elmira (NY) Water Board and provided operator training on energy management strategies. Recommendations from the study allowed the client to reduce energy expenses by 30% through a series of operational modifications.

I completed an energy management audit of the Pittsburgh Water and Sewer Authority and identified strategies for reducing power consumption. The results of this investigation provided the foundation for the Authority and its contract manager (U.S. Water L.L.C.) to develop and implement more effective maintenance and operations procedures to reduce energy costs.

I assisted the Banco Gubernamental de Fomento para Puerto Rico, Autoridad para el Financiamiento de la Infrastructura de Puerto Rico and PricewaterhouseCoopers in developing a new operating contract for the Puerto Rico Aqueduct and Sewer Authority (PRASA). The contract was developed, bid and awarded in less than six months, cutting the normal procurement time by nearly two-thirds. The new ten-year agreement with Ondeo will allow the government of Puerto Rico to eliminate the annual operations subsidy while service is improved. The value of the contract is $300 million per year.

II. SCOPE AND PURPOSE OF TESTIMONY

Q. ARE YOU GENERALLY FAMILIAR WITH NEW JERSEY-AMERICAN WATER COMPANY?

A. Yes, I am.

Q. MR. WOODS, PLEASE DESCRIBE YOUR AREA OF RESPONSIBILITY IN THIS MATTER.

A. I have been engaged by Division of the Ratepayer Advocate to review the cost of providing safe, adequate and proper service in the communities served by the New Jersey-American Water Company. I have also been asked to review the capital improvements undertaken by the Company and to review matters significant to statewide water supply management and operations.

III. SUMMARY OF FINDINGS AND CONCLUSIONS

Q. HAVE YOU REVIEWED NEW JERSEY-AMERICAN WATER COMPANY'S FILING FOR A RATE ADJUSTMENT?

A. Yes, I have.

Q. WHAT DOES THE COMPANY'S FILING AND THEIR PRE-FILED TESTIMONY REQUEST?

A. The Company is requesting an adjustment to rates that will result in an overall increase of 20.6% on the basis of a test year ending December 31, 2003.[1] They claim this increase is necessary to recover fair and reasonable operating expenses and the cost of capital improvements to the system.

Q. DO YOU BELIEVE THAT THIS RATE INCREASE SHOULD BE GRANTED?

A. No. The Company has not fully justified its construction program and certain projects are not yet complete and in service. Furthermore, the Company has not provided sufficient justification for the level of security expenses incurred to date and has in fact shown an 89% reduction in security costs going forward. Finally, the proposed expenses related to the American Water Resource Center appear to be duplicative of other costs incurred by American Water Works customers and the center itself would merely duplicate efforts already in progress in New Jersey.

Q. HAS THE COMPANY OFFERED SAVINGS RESULTING FROM SYNERGIES BETWEEN ELIZABETHTOWN/MOUNT HOLLY WATER COMPANY AND NEW JERSEY-AMERICAN WATER COMPANY?

A. Yes it has, however, those benefits are discounted to 75% of the full value of the savings and further, the savings are limited to those items the Company was willing to forecast as savings achievable by June 30, 2004. As noted in many of

[1] In the Matter of the Petition of New Jersey-American Water Company, Inc. for Approval of an Increase in Rates for Water and Sewer Service and Other Tariff Modifications; New Jersey-American Water Company, Inc.; Haddon Heights, NJ; July 10, 2003; p. 2, paragraph 5.

the Company's discovery responses, additional savings and improvements in service are possible as the new organizational and business plans take hold.

IV. ENGINEERING & OPERATIONS ISSUES

A. Capital Construction Program

Q. WHAT ARE THE PRINCIPAL CAPITAL INVESTMENTS CLAIMED IN THE COMPANY'S FILING?

A. The Company claims that it has made or will complete capital improvements to the system totaling $240 million in value since its last rate order, which became effective on April 6, 1999.[2] Mr. Andrew Chapman does not specify the exact nature of these projects and improvements. Mr. Steven J. Tambini does offer testimony on the scope of projects undertaken to be placed in service in 2003 and the first six months of 2004. The value of these projects totals $99,134,443.[3] This portion of the Company's capital construction program is made up of projects that can be categorized in two general areas: Routine Construction and major Investment Projects. The Company claimed test year investments totaling $23,392,559 for Routine Construction net of Refunds. Major Investment Projects for the test year total $58,269,981. In addition to the test year construction program, the Company has also requested rate relief for post test year capital

[2] Direct Testimony of Andrew M. Chapman, President, Exhibit PT-1; New Jersey-American Water Company, Inc.; Haddon Heights, NJ; July 2003; p. 12; lines 15 through 18.
[3] Direct Testimony of Steven J. Tambini, P.E., Exhibit PT-3; New Jersey-American Water Company, Inc.; Haddon Heights, NJ; July 2003; Schedule SJT-1, as revised by response to RAR-E-28.

additions at an estimated cost of $550,000 for a metering program in Ortley Beach and $16,921,903 for four major Investment Projects.

Within the group of test year Investment Projects, the "Howell Surface Treatment" ($22,312,066), the "Howell to Monmouth Pipeline" ($12,000,000), the "Swimming River Treatment Plant Improvements" ($11,346,810) and the "Howell to Lakewood Transmission Improvements" ($2,685,000) are the principal items of work. These four projects account for 59% of the test year additions described by Mr. Tambini.

In addition to the test year construction, the Company also indicates they have completed and placed in service other projects valued at $157,815,667 between June of 1998 and December 2002.[4] By far, the largest portion (82%) of this work was categorized as routine and recurring construction.

Q. HAS THE COMPANY COMPLETED AND PLACED IN SERVICE ALL ITEMS INCLUDED IN ITS CAPITAL PROGRAM?

A. No. The Company's case is structured around a test year ending at December 31, 2003[5] with a request for rate treatment of post test year capital additions through June 30, 2004.[6] As a result, a number of items in the Company's capital program remain under construction and are not yet complete and/or in service. Furthermore, the Company has withdrawn its request for recognition of certain projects that will either be deferred or not undertaken. The Company has also supplemented its

[4] Response to RAR-E-1.
[5] Direct Testimony of Rod P. Nevirauskas, Exhibit PT-6; New Jersey-American Water Company, Inc.; Haddon Heights, NJ; July 2003; p. 3 lines 16 through 18.
[6] Op. Cit, Tambini; p. 2, lines 18 through 21.

request for recognition of its test year capital program by adding projects not included in the Company's original filing. These changes are documented by Mr. Tambini in Exhibit PT-3A, Schedule SJT-1 as revised by the responses to RAR-E-28 and 29. Among other things, these changes indicate that the "Howell Surface Treatment" will not be fully complete and in service by the close of the test year. The as-filed budget for this project was $25,000,000.[7] Revised Exhibit PT-3A, Schedule SJT-1 indicates that the total cost of this project has risen to $26,370,000 and that $4,057,934 will not be completed until sometime in 2004.

Q. HAVE YOU REVIEWED THE INVESTMENT PROJECTS UNDERTAKEN BY THE COMPANY IN ITS CAPITAL PROGRAM?

A. Yes, I have, and I propose a number of adjustments to the maximum project costs proposed by the Company.

Q. ARE THERE A GROUP OF INVESTMENT PROJECTS PROPOSED TO IMPROVE AND EXPAND SERVICE IN THE COMPANY'S MONMOUTH AND OCEAN COUNTY SERVICE AREAS?

A. Yes. The Company has proposed several projects in this regard. The major elements of the Company's efforts include the "Howell Surface Treatment," the "Swimming River Treatment Plant Improvements," the "Jumping Brook Treatment Plant Improvements," the "Howell to Monmouth Pipeline," the "Howell to Lakewood Transmission Improvements," and the "Mantoloking

[7] Ibid; Schedule SJT-1.

Booster Station/ASR" projects. These projects will further the integration of the Company's operations in Monmouth County, Howell, Lakewood and the barrier island communities south of Bay Head. The projects will modify treatment, enhance regional reliability and redundancy and expand production capacity for this region of the State. The total test year expenses for these projects amounts to $48,783,876 and an additional $16,361,124 is projected for completion in 2004.

Q. THIS IS A SIGNIFICANT INVESTMENT PROGRAM FOR THE COMPANY'S MONMOUTH AND OCEAN COUNTY SERVICE AREAS. CAN YOU TELL US IF THE COMPANY IS OVERBUILDING CAPACITY IN THIS EFFORT?

A. It is not. I reviewed recent production records for the Company's treatment facilities as well as the Company's planning forecasts for water demands. The firm capacity of the facilities serving this area, including the Howell/Oak Glen Water Treatment Plant at its expanded capacity, will provide the Company sufficient firm capacity through 2008. This is a short planning horizon considering the time required to plan and develop new projects in today's environment.

Q. HAS THE COMPANY MADE ANY PROVISIONS FOR CAPACITY ADDITIONS THAT MAY BE NEEDED TO MEET DEMANDS BEYOND 2008?

A. Yes. The Howell project has been implemented in a way that will permit expansion in the future. This facility also treats water from the New Jersey Water

Supply Authority's Manasquan Reservoir, so access to additional water supply in the future is also accounted for.

Q. PLEASE TELLS US ABOUT YOUR REVIEW OF THE "HOWELL SURFACE TREATMENT" PROJECT.

A. This project involves a complete renovation of the Company's existing Oak Glen Water Treatment Plant. The existing facility, which was acquired from Howell Township several years ago, included an unusual dissolved air floatation/filtration system that was originally designed by the manufacturer to process industrial wastewater. After the Company acquired the Howell system, it constructed a carbon filtration system to provide an additional filtration barrier and to control taste and odor. The existing dissolved air floatation/filtration system and the post treatment carbon filters will be abandoned when the new facility is placed in service. In addition, the new facility will benefit from the complete renovation of the chemical storage and feed systems in the old facility and the construction of new residuals handling systems. The new treatment process will include a dissolved air floatation system designed specifically for drinking water treatment. This process will be followed by granular activated carbon/sand filters to provide a proper degree of filtration and to control taste and odors known to be issues with the Manasquan Reservoir supply.

Q. PRIOR TO SELECTING THE DISSOLVED AIR FLOATATION PROCESS, DID THE COMPANY CONDUCT ANY PILOT STUDIES OR OTHER ENGINEERING EVALUATIONS?

A. Yes, it did. In response to S-BCE-1, the Company made available for review a copy of the pilot study report[8] and the design report prepared by its consulting engineer.[9] These reports do not show that the Company investigated any other treatment techniques for the Oak Glen facility. It appears as though the Company simply made an exclusive decision to use dissolved air filtration. Although the existing facility used dissolved air filtration, this decision was clearly not based on a desire to maximize the use of the existing equipment or otherwise continue to use the existing dissolved air floatation units.

Q. DID YOU REVIEW THE <u>DISSOLVED AIR FLOATATION PILOT PLANT REPORT</u> PREPARED BY LEOPOLD WATER & WASTEWATER PRODUCTS?

A. Yes. This report documents the performance of the dissolved air floatation system and various filter configurations that could be employed in conjunction with the dissolved air floatation units. The results of the testing clearly demonstrate the effectiveness of the process at removing total organic carbon when ferric chloride is used as a coagulant. When water is being drawn directly from the Oak Glen Reservoir (a.k.a. Manasquan Reservoir) raw water turbidity can be expected to be

[8] <u>Dissolved Air Floatation Pilot Plant Report, August – September 1997</u>; Beckley, John; Leopold Water & Wastewater Products

[9] <u>Oak Glen Regional Water Treatment Plant and Related Facilities</u>; Gannett Fleming, Inc.; Harrisburg, PA; November 1998.

low. Under these conditions, excellent performance can be expected from the selected process. The pilot study demonstrates that compliance with the Stage 1 Disinfection/Disinfection Byproducts Rule and the Interim Enhanced Surface Water Treatment Rule. The pilot study also indicates that high turbidity will present a challenge. In cases when the New Jersey Water Supply Authority is filling the Oak Glen Reservoir from the Manasquan River, raw water turbidity could be well in excess of 200 NTU ("nephelometric turbidity units"). Since this condition was known prior to pilot testing, it would have been prudent for the Company to test other solids removal systems that are more tolerant of wide ranging influent turbidity.

Q. WOULD THE USE OF OTHER SOLIDS REMOVAL PROCESSES HAVE RESULTED IN A LOWER COST FACILITY?

A. Considering only capital costs, the use of alternate high rate clarification processes most likely would have resulted in similar construction costs. Other candidate processes like the Superpulsator or Actiflo (microsand ballasted flocculation) would have resulted in similar construction costs but both would have been more tolerant of rapid changes in raw water turbidity. Since both alternate processes are designed to address rapid fluctuations in raw water quality, lower operating costs during extreme conditions could be expected. These conditions are likely to be relatively infrequent, so the impact on total operations expense would also be minor.

Q. ARE THERE ANY AREAS WHERE THE COMPANY COULD HAVE ECONOMIZED ON THE CONSTRUCTION OF THE "HOWELL SURFACE TREATMENT" PROJECT?

A. Yes. The Company chose to construct new residuals handling units and to completely abandon the existing dissolved air flotation units. The old dissolved air floatation units could have been converted to process filter backwash water and wastewater flows from the new dissolved air floatation units.

Q. HAVE YOU MADE AN ESTIMATE OF THE SAVINGS POSSIBLE WITH SUCH AN APPROACH TO RESIDUALS HANDLING?

A. Yes. The total cost of the Howell project has risen since the rate case was filed, so we do not have a breakdown of the actual construction costs for this project. However, in new plant construction, wastewater handling facilities generally account for 5% to 10% of the total plant construction cost. At the low end of this range, the estimated portion of the Howell project costs dedicated to wastewater handling would amount to $1,300,000. Allowing for expenses associated with the renovation of the existing Krofta dissolved air floatation units at $525,000, the potential savings would be $775,000.

Q. WHAT IS YOU RECOMMENDATION REGARDING THIS PROJECT?

A. The maximum allowed test year expense for the project should be reduced by $775,000 to $21,537,066 as shown in Schedule HJW-1. Further, the amount transferred to Utility Plant in service should be reduced by the value of the

retirements provided in response to RAR-E-71 ($400,000) net of the value of the Krofta units assuming these would be retained for wastewater processing. Finally, these values should be updated once actual costs are known for the new plant to reflect the actual rather than estimated costs associated with the wastewater facilities constructed by the Company. However, based on the information provided to date by the Company, I support the recommendations made by Ratepayer Advocate witness Robert J. Henkes regarding the appropriate ratemaking treatment of this project. (Direct Testimony of Robert J. Henkes, pages 8-12).

Q. HAVE YOU REVIEWED THE "SWIMMING RIVER TREATMENT PLANT IMPROVEMENTS" PROJECT?

A. Yes. This project is being undertaken by the Company to assure compliance with the Interim Enhanced Surface Water Treatment Rule and the Disinfection/Disinfection Byproducts Rule. The strategy embodied in this project involves the modification of the oxidation/disinfection processes in the plant to eliminate the use of chlorine in the pre-treatment phases of the operation and to improve the effectiveness of the clarification processes to enhance Total Organic Carbon removal. Ozone will be used instead of pre-chlorine, the coagulant will be changed to ferric chloride and potassium permanganate will be added to better control manganese.

Q. DID THE COMPANY PERFORM ANY PILOT SCALE INVESTIGATIONS IN ITS EFFORTS TO DESIGN THE MODIFICATIONS TO THE SWIMMING RIVER WATER TREATMENT PLANT?

A. Yes. The Company evaluated a number of different chemical treatment, settling and filtration improvements.[10] The general approach to the Swimming River project was to identify a treatment strategy that would assure compliance with applicable current and proposed water quality regulations while maximizing the use of existing facilities. This project clearly needs to be undertaken to maintain compliance with the Disinfection/Disinfection Byproducts Rule and the Interim Enhance Surface Water Treatment Rule. Recent performance documented by the Company in the pilot study report and in response to RAR-E-42 shows that the pre-improvement condition of the plant was marginal with respect to these regulations. The pilot study report summarizes water quality results for the period including 1997 through 1999 and this shows excursions above the maximum contaminant level for Total Trihalomethanes in individual samples and Total Organic Carbon removal rates lower than the minimum required.[11] The US Environmental Protection Agency recommends enhanced coagulation as the method of choice to achieve compliance with the Interim Enhanced Surface Water Treatment Rule. The Company had already instituted enhanced coagulation at Swimming River but the results as documented for the period from 1997 through

[10] New Jersey-American Water Company, Monmouth Service Area, Swimming River Treatment Plant Improvements, Pilot Study Report; American Water Works Service Co., Inc.; December 2000.
[11] Ibid; Table 3, p. 3.

2002 shows that this alone would not assure continued compliance. The pilot study also considered the potential impact of the Stage II Disinfection/Disinfection Byproduct Rule and the Long Term 2 Enhanced Surface Water Treatment Rule. These are proposed but not yet adopted USEPA regulations. The pilot study concluded that the ferric chloride/ozone/potassium permanganate strategy would assure continued compliance with these regulations.[12] However, as the Company notes in response to RAR-E-40, compliance with the Long Term 2 Enhanced Surface Water Treatment Rule will be dependent on source water characterization and additional improvements could be required. In my review of the design and inspection of the plant site, I did not see anything undertaken by the Company in this project that would jeopardize the Company's ability to comply with the proposed regulations. Furthermore, should additional modifications be required, these could be made without causing any of the current improvements to become redundant.

Q. WHAT IS YOUR OPINION OF THE COMPANY'S APPROACH TO THE SWIMMING RIVER TREATMENT PLANT IMPROVEMENTS PROJECT?

A. I believe the Company's approach to the project is proper and the facilities they are building are necessary to assure compliance with applicable drinking water quality regulations. However, based on the information provided to date by the Company, I support the recommendations made by Ratepayer Advocate witness Robert J.

[12] Ibid; p. 16.

Henkes regarding the appropriate ratemaking treatment of this project. (Direct Testimony of Robert J. Henkes, pages 8-12).

Q. WHAT IS THE "RT. 30 ABSECON, NJDOT UTILITY RELOCATIONS" PROJECT?

A. This involves the construction of new pipelines in coordination with a New Jersey Department of Transportation ("DOT") project to improve Route 30 in Absecon. The Company is taking the opportunity to improve its distribution system in this area while making relocations to avoid conflicts with DOT work.

Q. IS ANY PORTION OF THIS WORK ELIGIBLE FOR FUNDING BY NJ DOT?

A. Yes and the Company states that $195,000 of this project would be eligible for reimbursement.[13] This amount should be deducted from the total project cost and an appropriate adjustment has been made in Schedule HJW-1.

Q. WHAT IS THE PROJECT "GALLOWAY TOWNSHIP DIST EXTENSIONS TO CONTAMINATED AREAS?"

A. The Company has had a long history of extending service to homes and businesses with contaminated private wells in Atlantic County. This project is a continuation of that effort. This project will extend service to 160 customers at the outset, but infill development will likely produce additional customers as time goes on.

[13] Response to RAR-E-48.

Similar projects undertaken in the past by the Company have been done with revenue guarantees supported by the local Township governing bodies. Assuming that this project is being undertaken under similar financial arrangements, the guarantee payments should be accounted for in the Company's revenue forecast. It does not appear as though such an allowance was made to Other Operating Revenues to account for this project.

Q. IS THE COMPANY UNDERTAKING A TREATMENT UPGRADE PROJECT TO REMOVE MTBE CONTAMINATION FROM ITS MILL ROAD AND DOBBS AVENUE FACILITIES?

A. Yes.

Q. IS THE COMPANY CONSTRUCTING THIS FACILITY WITH FUNDS FROM THE NEW JERSEY SPILL COMPENSATION FUND OR ANY OTHER SIMILAR SOURCE OF FUNDING?

A. No.[14] I have also verified with the New Jersey Spill Compensation Fund that the Company did not submit an application for funds for this project even though funding may be available.

Q. IS FUNDING AVAILABILITY FROM THE NEW JERSEY SPILL COMPENSATION FUND A CERTAINTY FOR SUCH A PROJECT?

[14] Response to RAR-E-58.

A. No it is not. But I would have expected the Company to have taken steps to seek this funding.

Q. DO YOU HAVE A RECOMMENDATION CONCERNING THIS PROJECT?

A. Yes. Regardless of the final cost of the project, the Company should not be allowed to transfer this facility to plant in service for ratemaking purposes until it demonstrates that it has exhausted all reasonable attempts to secure outside funding for the project.

Q. IS THE COMPANY UNDERTAKING A MAIN REPLACEMENT PROJECT IN RIVERTON AND PALMYRA?

A. Yes. The Company is replacing 8,200 feet of cement/steel "stovepipe" mains in these communities in an effort to eliminate maintenance expenses associated with failures on these mains.[15] The cost of this project is $1,052,000.[16]

Q. HAS THE COMPANY HAD FREQUENT MAIN BREAKS IN THESE AREAS?

A. The Company has averaged slightly more than five main breaks on "stovepipe" mains in Riverton and Palmyra. The average cost to repair these breaks amounts to roughly $38,900 per year.[17]

[15] Op. Cit.; Tambini; p. 8, lines 1 through 12.
[16] Ibid; Schedule SJT-1 as revised by RAR-E-28.
[17] Response to RAR-E-46.

Q. DO YOU BELIEVE THE COST OF THIS PROJECT IS JUSTIFIED BY THE AVOID COST OF MAIN FAILURES?

A. No. If we take the Company's weighted cost of capital at 8.78%[18] the cost of capital alone for this project would be $92,300 per year. This greatly exceeds the maintenance cost incurred in repairing the breaks.

Q. AS A RESULT OF THIS DISPARITY, SHOULD AN ADJUSTMENT BE MADE REGARDING THIS PROJECT?

A. Yes. The break even cost that could be supported by avoiding the entire cost of main repairs is $443,000. By prorating this amount between the test year and the post test year portions of the project, we can see that the test year portion of the project should be limited to $206,854, reducing the test year budget for the project by $284,367. This adjustment is shown on Schedule HJW-1.

Q. ARE YOU PROPOSING ANY OTHER ADJUSTMENTS ON SCHEDULE HJW-1?

A. Yes. In response to RAR-E-28, the Company offered a revision to Schedule SJT-1. This revision included three new projects, the "West Avenue Sewer Relining," the "Upper Township Main Extension," and the "Pedricktown-Center Square Road 12-inch Main" for which no supporting documentation was provided. Pending a review of these major Investment Projects, I recommend each be deleted entirely.

[18] Prepared Direct Testimony of Pauline M. Ahern, CRRA, Exhibit PT-10; AUS Consultants; Moorestown, NJ; July 2003; p. 3, line 7.

In addition, the Company's response to RAR-E-62 indicated that the "Computer Software Project (water alloc portion only)" project would be deleted. The Company also has a project titled "Oxford Ground Water Facility (Design)" listed on Schedule SJT-1. The cost of a design should not be included in rates until the facilities become used and useful. Finally, as discussed in testimony by Robert Henkes, the post test year additions should not be allowed. The net effect of these adjustments and those discussed above is to reduce the Company's Total construction amount of $99,134,443 by $21,543,182 to a revised total of $77,591,260. This would be the maximum amount that should be considered in making updates to the Company's utility plant in service balance. Progress towards this level of completed construction appears to be quite slow in that the actual level of expenses through October 2003 is much less than this amount. That is one reason why I support the recommendations made by Ratepayer Advocate witness Robert J. Henkes regarding the appropriate ratemaking treatment of the Company's proposed Utility Plant in Service. (Direct Testimony of Robert J. Henkes, pages 8-12). The actual cost of these projects should be verified at the end of the test year and appropriate adjustments should be made to reflect the value of plant actually placed in service.

B. Operating Revenues

Q. HAVE YOU REVIEWED THE METHODOLOGY USED BY THE COMPANY TO FORECAST SALES?

A. Yes. Essentially, the Company developed a five-year normalization of sales for its residential and commercial classes. Similar techniques were applied for customers in Adelphia, Howell, Logan and Ortley as well as the Sales for Resale customer class. Actual base year consumption was used to project pro forma revenue for Industrial and Other Public Authority classes.[19]

Q. DO YOU AGREE WITH THIS APPROACH?

A. Under normal circumstances I would concur with such an approach to forecasting sales. As Mr. Watkins notes throughout his testimony on this subject, the intent of normalizing demand is to arrive at a basis for projecting future demand that accounts for reasonable and recurring variances in consumption. Mr. Watkins used a five year normalization period (1998 through 2002). Three of the five years in this period were impacted by Drought Declarations by the New Jersey Department of Environmental Protection and the Governor. The focus of these measures was to reduce non-essential water demands like lawn watering. Using all years as the basis of the projection would tend to result in lower forecasts for average use since customer consumption was artificially modified by the Drought Declarations. Strictly comparing averages, the average residential consumption for the five-year normalization period was 86.2 thousand gallons per year[20] while the average for the last three non-drought years was 88.6 thousand gallons. This is a level of consumption roughly 2.7% higher than the five year average. A similar

[19] Direct Testimony of John M. Watkins, Exhibit PT-5; New Jersey-American Water Co.; Haddon Heights, NJ; July 2003; pp. 6-7.
[20] Ibid; p. 10, line 30.

comparison for commercial use shows the non-drought average to be 1.3% higher than the five-year average. Having noted these differences, we must look to the overall impact on projected water sales and system delivery. The effect of adopting a different methodology focusing only on non-drought years is not significant. There are, nevertheless, specific revenue adjustments associated with sales to Livingston and Mount Laurel and these are described by Mr. Henkes.

C. Operating Expenses

Q. WHAT ARE THE PRINCIPAL EXPENSES INCURRED IN OPERATING THE COMPANY?

A. Operations Labor and labor related expenses accounts for 28% of the Company's operating expenses. This the single largest operating expense for the Company and the amount shown on Exhibit No. P-2, Schedule 9 reflects an allocation of 12.67% of the total cost to capitalized labor.[21] In addition to direct labor expenses associated with the Company's employees, 11% of New Jersey-American's operating expenses go toward Service Company charges. These expenses cover the cost of centralized accounting and customer service as well as engineering and technical support. As such, much of this cost can be viewed as a labor charge for services that would otherwise need to be provided by Company employees or consultants if it were not for the Service Company arrangement. In addition to direct and indirect labor expenses, 14.5% of the Company's base year operating expenses result from purchased water costs from affiliates and non-affiliated

[21] Op.Cit; The Petition; Exhibit P-2, Schedules 10 through 12.

entities. The next largest discrete expenses are: Sewage Treatment & Disposal Costs at 8.9%, Electric Power at 7.6% and Insurance Other than Group at 3.6%. Other O&M, a collection of various activities and functions, accounts for 17% of the base year expenses.

Q. AS A RESULT OF THE PROPOSED PRO FORMA ADJUSTMENTS, ARE THERE ANY SIGNIFICANT CHANGES IN THE COMPANY'S COST PROFILE?

A. The Company is proposing a significant increase in tank painting expense to accommodate a levelized approach to this maintenance item. As proposed, this amounts to 1.4% of the Company's pro forma operating and maintenance expenses. They have also proposed security expenses at $2,200,000 per year with an additional amortized amount for security costs at $1,040,000. Taken together, these items account for 2.6% of the pro forma operating expense. The Company has also proposed an $846,025 expense for the Thames Water Institute.[22] Finally, the Company has also proposed a sharing of synergy related savings that has the effect of reducing pro forma operations and maintenance expense by 2.3%.

Q. HAVE YOU REVIEWED THESE EXPENSES AND DO YOU PROPOSE ANY ADJUSTMENTS TO THE COMPANY'S PRO FORMA EXPENSES?

[22] Op. Cit., The Petition; Exhibit P-2, Schedule 9; also referred to as the "American Water Resource Center" elsewhere in Company Testimony and Exhibits.

A. Yes, I have reviewed these expenses and I recommend changes to the amortization for deferred security expenses and the proposed expense for the American Water Resource Center (a.k.a. "Thames Water Institute"). In addition to these adjustments, I have also reviewed the testimony of Robert Henkes concerning tank painting and I concur with and support the adjustments he has made in regard to this item.

C.1 Security Expenses

Q. HAVE YOU REVIEWED THE COMPANY'S TESTIMONY REGARDING SECURITY EXPENSES?

A. Yes. Redacted testimony offered by Mr. Tambini describes the significant level of expense incurred by the Company since September 11, 2001. For the twenty-eight months ending December 31, 2003, the Company projects its extraordinary security costs at $5,200,000.[23] Because of the nature of this issue, the Company has properly not disclosed the details of its security measures. However, in response to RAR-E-77, the Company indicated that these expenses include a mix of capital and operating expenses. Furthermore, they have indicated that they will transfer appropriate amounts to capital and reflect this change in a revised and updated revenue requirement.

[23] Direct Testimony of Steven J. Tambini, Exhibit PT-3BR, Redacted; New Jersey-American Water Company; Haddon Heights, NJ; July 2003; p. 5, line 5.

Q. ASSUMING FOR THE MOMENT THAT THE FULL $5,200,000 REPRESENTED EXTRAORDINARY OPERATING EXPENSES, DO YOU HAVE AN OPINION CONCERNING THE LEVEL OF EXPENSE?

A. Yes, it is quite high and may not be supportable.

Q. WHY DO YOU BELIEVE THIS?

A. The Company indicated that, as a result of its acquisition by RWE, it was able to take advantage of expertise in this area available from RWE.[24] As a result of RWE's involvement, the Company was able to identify $1,958,000 in savings for New Jersey-American Water. In response to RAR-E-23, the Company points out that this is in fact a reduction in expense, as opposed to an avoided cost. Further, the synergy savings adjustment shown on Exhibit P-2, Schedule 39, line 22 deducts the full amount of the savings from the pro forma security cost of $2,200,000. The surviving amount is $242,000 – a much more reasonable level of continuing expense.

Q. HAVE YOU MADE ANY COMPARISONS OF THE LEVEL OF SECURITY EXPENSE EXPERIENCED BY NEW JERSEY-AMERICAN WITH OTHER WATER UTILITIES?

A. Yes. I have looked at the level of expense incurred by Elizabethtown Water Company. On an annual basis, Elizabethtown expensed $300,000[25] since

[24] Direct Testimony of Dennis W. Doll; Exhibit PT-11; New Jersey-American Water Company; Haddon Heights, NJ; Synergy Study Exhibit PT-11A; p. 11.
[25] Response to RAR-E-80.

September 11, 2001 compared to New Jersey-American's average of $2,228,000 per year. On a per customer basis, Elizabethtown's security expenses amounted to $1.58 per year while New Jersey-American incurred expenses of $5.98 per year. This is a level of expense that is 378% higher than the Elizabethtown expenses. Considering the adjusted annual level of security expenses after allowing for the RWE generated expense reduction ($242,000) we can see that the unit cost per customer will drop to $0.64 per year.

Q. HOW WOULD YOU PROPOSE THE DEFERRED EXPENSES BE TREATED?

A. A level of expense based on Elizabethtown's unit cost per customer should be developed for the period from September 2001 through December 2003. In doing this we can see that the expenses incurred by New Jersey-American over that same period would have been limited to $1,400,000. This suggests a level of expense that would have resulted had New Jersey American exercised the same level of management control over security costs as Elizabethtown Water Company during the same calendar period. Alternatively, a level of expense could be derived using the current level of expense developed through the RWE review of New Jersey-American's past practices. However, we can assume that the cost level proposed as a result of the RWE review reflects added knowledge concerning water system security that may not have existed throughout the September 2001 to December 2003. Therefore, the Elizabethtown Water Company actual unit cost is a more appropriate measure.

Q. IF THE ALLOWED DEFERRED LEVEL OF SECURITY COSTS IS LIMITED TO $1,400,000, HOW SHOULD THE AMORTIZATION AMOUNT BE ADJUSTED?

A. The Company proposed a five-year amortization of the deferred amount. Using the same time basis for the amortization as proposed by the Company but the imputed cost amount of $1,400,000, the annual expense should be limited to $280,000. These amounts are calculated on Schedule HJW-2.

Q. ARE YOU PROPOSING ANY OTHER ADJUSTMENTS RELATED TO SECURITY?

A. Yes. When Congress passed the "Public Health Security and Bioterrorism Preparedness and Response Act of 2002," it authorized funds to assist water utilities in assessing security needs and making improvements recommended by those assessments. Congress further appropriated funds to USEPA to allow for the completion of vulnerability assessments. These funds were readily available to large water systems, but the Company has indicated that it did not even apply for these funds.[26] By contrast, Elizabethtown Water Company applied for and received the maximum grant of $115,000. As a result of New Jersey-American's lack of effort in attempting to secure a grant for vulnerability assessments, I propose that the total amount of security related capital expenses be reduced by $115,000 for ratemaking purposes. Had the Company secured a grant, it would have experienced reduced expenses associated with defining its vulnerabilities

[26] Response to RAR-E-78.

and those improvements needed to better secure its systems. The Company's customers should not be penalized for inaction by the Company in this area.

C.2 American Water Resource Center

Q. HAS THE COMPANY PROPOSED THE CREATION OF A COMPREHENSIVE WATER RESOURCES ENTITY?

A. Yes. The Company has testified that there is a need to launch a comprehensive water resources research center to be located in New Jersey. According to Mr. Clerico, the center, to be known as the American Water Resource Center, will be an independent non-profit organization to "advance new watershed based solutions to enhance water quality and protect our water resources for the future."[27]

Q. WILL THE PROPOSED CENTER INCLUDE OTHER ENTITIES BEYOND THE NJOU'S?

A. As it has been proposed, the center will encourage participation from a variety of institutional and utility partners as well as by other independent non-profit groups such as watershed associations. The initial primary focus of the center will be water resources issues pertinent to New Jersey, but the Company suggests that this role may expand to other States in the future.[28]

[27] Direct Testimony of Edward A. Clerico; Exhibit PT-13; New Jersey-American Water Company; Haddon Heights, NJ; July 2003; p.6, lines 1-2.
[28] Response to RAR-E-128.

Q. HAS THE COMPANY SUGGESTED THAT OTHER AFFILIATED AMERICAN WATER WORKS COMPANIES PARTICIPATE IN THE AMERICAN WATER RESOURCE CENTER?

A. No. They have proposed to launch the Center and fund it solely through contributions from the three NJOU's. Further, the cost of $1,333,333 has been allocated to each NJOU on the basis of the number of customers served. The request for funding represents an annual and recurring operating expense amounting to $846,025 for New Jersey-American, $453,413 for Elizabethtown Water Company and $33,895 for the Mount Holly Water Company.[29] It is not apparent that the allocation extends to customers of Applied Wastewater Management, a New Jersey-based affiliate of the NJOU's and subsidiary of Elizabethtown Water Company, or the Company's operating affiliates like Liberty Water. Similarly, there does not appear to be any attempt to have the customers of affiliate American Water Services share in the cost of the Center. The impact of allocating the cost across all American Water affiliates is significant. The Company claims to provide service to 20 million customers in the Americas.[30] If the requested start up and operational costs were allocated on the basis of these 20 million customers, the New Jersey-American share of the Center would drop to $24,800.

[29] Op.Cit.; Clerico; p. 5, lines 13 through 18.
[30] American Water Works web page; http://www.amwater.com/awpr/about_us/aboutus1172.html; November 2003.

Q. DO NEW JERSEY-AMERICAN WATER COMPANY'S CUSTOMERS SUPPORT RESEARCH EFFORTS IN ANY OTHER WAY?

A. Yes. Through Service Company charges, a portion of the Company's revenue requirement is allocated to water quality research and development performed at the Company's Bellville, Illinois facility. Since some of this research is partially funded by the American Water Works Association Research Foundation, a water industry research group, there is a clear overlap and potential duplication of effort.

Q. ARE YOU FAMILIAR WITH ANY NEW JERSEY-BASED RESEARCH ORGANIZATIONS WITH A MISSION SIMILAR TO THAT PROPOSED FOR THE CENTER?

A. The Otto H. York Center for Environmental Engineering and Science at the New Jersey Institute of Technology is such an organization. It's "objectives are to:

- Conduct applied water research to address the needs of New Jersey's drinking water supply infrastructure and to complement national research foundations;
- Conduct applied research that has immediate impact and applications, such as 'security' related research;
- Encourage New Jersey water utilities, consultants and universities to conduct joint water research to minimize duplication;
- Provide an industrial perspective to graduate programs at New Jersey colleges and universities;
- Address all relevant drinking water issues and needs in New Jersey; and
- Establish an information system to disseminate to the public and private sectors results of academic and water research activities."[31]

[31] Informational Brochure, New Jersey Applied Water Research Center NJAWRC; American Water Works Association, New Jersey Section NJAWWA & Otto H. York Center for Environmental Engineering & Science at NJIT; Newark, NJ; September 2003; p. 1.

Q. ARE THE NJOU'S PROVIDING ANY SUPPORT FOR THE OTTO H. YORK CENTER?

A. Yes. As members of the New Jersey Section of the American Water Works Association, the NJOU's are directly and indirectly supporting the operation of the Otto H. York Center.

Q. WHAT IS YOUR CONCLUSION CONCERNING THE PROPOSED AMERICAN WATER RESOURCE CENTER?

A. The proposed Center is duplicative of ongoing efforts by American Water Works research and development group in Bellville, Illinois and the Otto H. York Center at NJIT. Creation of the new center would further dilute rather than concentrate research activities unless the Company is also proposing to eliminate its Bellville research activities and withdraw all support for the Otto H. York center. The suggestion that only the NJOU's bear the burden of both start-up and ongoing expenses of the proposed Center is an unfair burden on some, but not all New Jersey customers of American Water Works. This disparity results from the fact that no allocation of the costs is made to Applied Wastewater Management or the contract operations clients of the Company's affiliates.

Q. DO YOU HAVE A RECOMMENDATION CONCERNING THE EXPENSES OF THE PROPOSED CENTER?

A. Yes. The allocated cost amounting to $846,025 for New Jersey-American, $453,413 for Elizabethtown Water Company and $33,895 for the Mount Holly

Water Company should not be allowed for ratemaking purposes. If the Company's owners feel there is a need to create yet another research organization, the cost for such an entity should be a below-the-line expense.

D. Synergies

Q. WHAT IS YOUR GENERAL OPINION OF THE CONSOLIDATION OF THE NJOU'S?

A. This is a unique event in the history of water utility service in New Jersey. Although mergers and acquisitions have been routine for many years, the merger of regulated water utilities of this size, scope and significance to statewide water resource management is without precedence. The merger should create meaningful economies of scale throughout the NJOU's. In geographic areas where the formerly independent companies competed for service territory, coordinated resource and asset planning by the NJOU's should result in more effective application of capital and better service. We should also expect a company of this size and scope to make noticeable improvements in customer service.

Q. HAS THE COMPANY EVALUATED SYNERGIES RESULTING FROM THE MERGER AND PROPOSED SAVINGS AS A RESULT?

A. The Company has conducted a synergy study but its scope is time limited on many issues. That is, the organizational and business practices changes recommended in

the report are only those items that will produce an immediate, fixed, known and measurable result by June 2004.[32] The Company suggests that additional organizational changes will produce additional efficiencies in the future, but they have not attempted to quantify those efficiencies or even commit to a timeline under which the delivery of those efficiencies can be expected.

Q. WHAT SYNERGIES HAS THE COMPANY OFFERED IN THIS CASE?

A. They have offered synergies totaling $4,363,450 and this estimate is comprised of the following items: a reduction in extraordinary security expenses ($1,958,000), a reduction in labor expenses ($1,088,100), a reduction in Other O&M ($498,250), a reduction in Service Company Expenses ($494,100), a reduction in chemical expenses ($269,000) and a reduction in insurance other than group ($56,000).[33]

Q. HOW ARE THESE SAVINGS ACHIEVED?

A. The savings in security expense result from changes in Company practices identified by RWE. In simple terms, this is an elimination of expenses the new owner no longer deemed necessary. This represents an 89% reduction in security expenses. Although the details of the change are obscure, we believe the surviving level of expense is reasonable and proper and more reflective of the level of expense that should have been incurred by the Company over the last twenty-eight months. The reductions in labor and Service Company expenses are essentially

[32] Testimony of Thomas J. Flaherty, III, Exhibit PT-12; New Jersey American Water Company; Haddon Heights, NJ; July 2003; p.18, line 23.
[33] Op. Cit., The Petition; Exhibit P-2, Schedule 39, Page 2 of 2.

the result of the Company eliminating executive and management positions made redundant by change in ownership (e.g. the elimination of a Company President and Vice-President of Operations) and by the changing the structure of New Jersey-American from a geographically centered organization to a functionally centered organization. Nearly all of the positions eliminated as a result of the shift to a functional organization could have been achieved absent the change in control had New Jersey-American adopted such a structure on its own. The reductions in chemical expenses, insurance other than group and other O&M result generally from the elimination of outside vendors or the adoption of the most favorable procurement practices available in either Elizabethtown Water Company or New Jersey-American Water Company.

Q. ARE THESE REASONABLE AND APPROPRIATE CHANGES IN BUSINESS PRACTICES THAT SHOULD BE EXPECTED FROM THE CONSOLIDATED MANAGEMENT OF THE NJOU'S?

A. Yes. Since the change in control was approved by the Board of Public Utilities in Docket No. WM01120833, the Company has been under the control of a single executive team. It is reasonable to expect that this team would have identified the best practices needed to manage and operate the NJOU's and that some of these practices would have been implemented by now.

Q. HAS THE COMPANY PROPOSED A REDUCTION IN THE BENEFIT OF THESE SAVINGS TO THE RATEPAYER?

A. Yes. They have reduced the benefit, after allowing for the cost to achieve the savings, by 25%.[34]

Q. DO YOU THINK THAT THIS IS PROPER?

A. No, I do not. These changes are normal and customary improvements that would be expected of any qualified management team. As noted by Mr. Flaherty, the savings identified in the synergy study are single year, steady-state savings that, once achieved, should occur annually into perpetuity.[35] In determining the revenue requirement for the Company, the pro forma level of operating expense should be adjusted to reflect the savings without reduction or discount.

Q. DO YOU BELIEVE THAT THERE ARE ANY IMPROVEMENTS IN EFFICIENCY OR EFFECTIVENESS THAT WILL RESULT FROM CONSOLIDATION OF THE NJOU'S BEYOND THOSE IDENTIFIED BY THE COMPANY?

A. Yes. The Company has adopted a functional organization for its statewide operations. The synergy study identified a number of redundant management and non-union positions and they have taken steps to eliminate these positions. They have not offered any synergies that could result from the implementation of this new management approach at the workforce level. Some of the potential changes may require negotiation with the various bargaining units over changes in work

[34] Ibid.
[35] Op. Cit., Flaherty; page 19, lines 10 through 13.

conditions or the composition of the work force. Nevertheless, it is undeniable that improvements in effectiveness and efficiency are possible with the new organization.

Q. COULD YOU GIVE US SOME EXAMPLES OF WHAT MAY BE ACHIEVABLE?

A. Yes. By adopting a functional organization in production, the assignment and performance of maintenance and repair work by management becomes more directly related to the location of the work rather than the location from which the employees are dispatched to do that work. In cases where the Company is combining geographically proximate entities into single functional organizations, one would expect to see a more effective and efficient means of managing and assigning work. Consider, for example, the production operations in the Short Hills operating center of New Jersey-American Water Company and the production operations of Elizabethtown Water Company. Prior to the change to a functional organization, production maintenance employees would have been dispatched from Elizabethtown's operations centers to perform work on outlying facilities. Similarly, management in Short Hills would have done the same for facilities owned by New Jersey-American Water Company. The assignment of work would have been done as though the resources needed to perform any specific task were completely independent and unrelated. Production mechanics could be dispatched from Short Hills to work on facilities in Bernards or Bedminster only to find that they are driving past similarly qualified employees on

their way to perform similar tasks in Pottersville. Not only will the new management structure be better able to schedule work in a more efficient manner, but it will also benefit from the ability to more efficiently manage stock for repair parts and consumables and the ability to better coordinate the provisioning of tools and equipment to perform the work. Similar benefits could be expected in other areas where the Company's service areas adjoin or are reasonably proximate. This occurs in the case of the New Jersey-American Burlington/Camden service area and the Mount Holly Water Company operations. The Company has indicated that it is evaluating options to improve the efficiency of its work force in this regard, but they have not yet arrived at specific plans.[36]

Q. DO YOU THINK THAT THESE MANAGEMENT EFFICIENCIES WILL RESULT IN A WORK FORCE REDUCTION?

A. Not necessarily, but I would expect the growth in the work force to be less than what would otherwise be necessary as the Company continues to add customers and facilities.

Q. DO YOU BELIEVE THAT THE NEW ORGANIZATIONAL STRUCTURE WILL ALLOW THE COMPANY TO MORE EFFICIENTLY PROCURE STOCK FOR NETWORK REPAIRS?

A. Yes. The Company should be able to reduce the aggregate level of stock maintained for network repairs. This includes items such as valves, fire hydrants,

[36] Response to RAR-E-5.

pipe, fittings, repair clamps and the like. Before management consolidation, each NJOU would have been obligated to provide a level of repair stock and materials to allow maintenance and repair work of the system networks to proceed normally and without interruption due to stock shortages. The combined Company should see a benefit in the reduction in stock levels assuming organization wide stock control. In this case, we would expect the total to be less than the sum of the parts as minimum order quantities and reorder points are established on a consolidated basis. Again, the Company has indicated they are considering this issue, but no firm plans have been established.[37]

Q. DO YOU BELIEVE THE COMPANY WILL BE ABLE TO MANAGE CUSTOMER METERS MORE EFFECTIVELY AS A RESULT OF THE CONSOLIDATION?

A. Yes. The Company maintains fully equipped meter testing facilities in Elizabethtown Water Company and in Lakewood.[38] It is likely that consolidation of small meter testing could be achieved at a single location. This would permit the coordinated purchasing of meters for all of the NJOU's as well as the coordinated management of new meter stock levels. The Company has already made the decision to eliminate the use of outside meter testing services by New Jersey-American for large meters[39] for an anticipated savings of $30,000 annually.

[37] See Responses to RAR-E-8, 9 and 10.
[38] See response to RAR-E-27.
[39] Op. Cit., Doll; Exhibit PT-11A, page 11.

The potential savings associated with the consolidation of small meter management and testing could greatly exceed this level of savings.

Q. HAS THE COMPANY MADE A DECISION TO CLOSE ITS WESTFIELD CALL CENTER AND CONSOLIDATE THIS FUNCTION IN THE AMERICAN WATER WORKS CALL CENTER IN ALTON, ILLINOIS?

A. The Company indicated that it announced the Westfield call center functions will be moved by the end of October 2004 but the decision regarding the location of the new call center was not announced.[40] This leaves open the question as to a possible New Jersey location for the call center function in favor of a move to Alton, Illinois. In either case, the future of 61 full time employee positions and 14 temporary positions is uncertain.

Q. DO YOU BELIEVE THAT CLOSING THE WESTFIELD CALL CENTER AND MOVING THIS FUNCTION TO ALTON WOULD MAKE THE COMPANY MORE EFFECTIVE AND EFFICIENT?

A. No, I do not. Recent performance for New Jersey-American shows this to be neither more cost efficient than maintaining a local call center nor more effective at responding to customer inquiries. I will not attempt to reiterate the testimony of Ms. Barbara Alexander in the area of performance failures at Alton and the degradation in customer service since this function was moved to Alton.

[40] Response to Elizabethtown RAR-E-32.

However, I will point out some areas where that lack of a local call center is compromising the Company's ability to provide safe, adequate and proper service.

Q. HAS THE COMPANY INDICATED A TIMELINE BY WHICH IT EXPECTS TO CONSOLIDATE ITS INFORMATION MANAGEMENT FUNCTIONS RELATED TO CUSTOMER SERVICE?

A. Yes. It has indicated that this may not occur until 2007.[41] As a result of this delay, parallel business systems must be maintained for the Elizabethtown/Mount Holly customers and for the New Jersey-American customers. Given that the Company has already made changes to organize its production, network and service delivery functions on functional lines across the former companies, we can anticipate that coordination between two completely different customer service functions and organizations will be a continuing challenge.

Q. HAVE YOU EXAMINED ANY ASPECT OF WORK FLOW RELATED TO THE ALTON AND WESTFIELD CALL CENTERS?

A. Yes. I have considered the flow of work related to emergency calls.

Q. PLEASE DESCRIBE THE DIFFERENCES BETWEEN THE TWO ORGANIZATIONS.

A. In the case of New Jersey-American customers, an emergency call would arrive at Alton, Illinois. The customer service representative answering the call would

[41] Op.Cit., Chapman; p. 11, lines 5 through 11.

identify the issue as an emergency request and hand-off the matter to a special "Time Critical" group in Alton. "Time Critical" would first identify the responsible local water company office capable of addressing the problem. Since Alton is a national call center, at this point, "Time Critical" would determine that the emergency is from New Jersey, as opposed to some other state served by American Water Works, and then identify the local area of the company responsible for the work required. "Time Critical" then issues a service order and initiates a call to the local field office to follow-up on the service order. At this point, the problem is handed-off to a local on-call supervisor who then contacts the customer to determine what needs to be done to properly respond to the customer inquiry. At this point work is scheduled and dispatched by the local supervisor. On completion of the activity, "Time Critical" is notified by the supervisor of actions taken in response to the inquiry.

By contrast, a call arriving from an Elizabethtown/Mount Holly customer at the Westfield call center is handled by a single customer service representative who is able to determine the nature of the work, schedule the work with the customer and issue dispatch orders through a service coordinator.[42]

Q. WHAT PROBLEMS DO YOU SEE WITH THE NEW JERSEY-AMERICAN/ALTON ARRANGEMENT?

A. First, contact is lost with the customer before a final determination of the nature of the problem is made. In fact, the problem is handed off twice before a link between

[42] See Responses to RAR-E-94 and 95.

the customer reporting the problem and an employee able to define the problem and marshal resources to address the problem is made. This creates opportunities for delay or simple misunderstanding. Particularly in the post September 11th world we live in, we must concern ourselves with issues and events that simply cannot tolerate delay and misunderstanding in initiating a proper response.

Q. DO YOU BELIEVE THAT THE ELIZABETHTOWN/WESTFIELD ARRANGEMENT IS SUPERIOR TO THE NEW JERSEY-AMERICAN/ALTON ARRANGEMENT?

A. Absolutely. The Westfield call center is able to define the nature of the emergency and dispatch work without a break in contact with the customer. This is not a feature of the New Jersey-American arrangement. Furthermore, the Westfield call center is under control of local management in New Jersey. It is not obligated to respond to the needs of customers (or utility managers) in multiple states as is the case with the Alton call center. Using the Elizabethtown/Westfield model, one could expect to see a coordinated response, involving customer relations, operations and service delivery, to the problem without interference from competing needs in other areas of the country.

Q. BUT DOESN'T IT COST MORE TO MAINTAIN A LOCAL CALL CENTER?

A. Apparently not. In response to RAR-E-125, the Company indicated that the Alton Call Center is costing ratepayers slightly more. The sum of the avoided and

reduced costs is slightly less ($7,835 per year) than the Service Company Call Center costs. Given the deterioration in service within Alton and the poor comparison in service levels between Alton and Westfield, it seems hard to justify the continued routing of New Jersey-American calls out of state.

Q. IS IT POSSIBLE TO MOVE THE NEW JERSEY-AMERICAN CUSTOMERS TO THE WESTFIELD CALL CENTER?

A. In prior rate proceedings, Elizabethtown Water Company indicated that the SAP systems and call center functions were robust and scaleable. We see no reason to doubt these assertions at this point. Nevertheless, in response to Elizabethtown RAR-E-32, the Company indicated: "It is not feasible to transfer the New Jersey-American call center workload to Westfield given the significant cost to migrate New Jersey-American's customer functions from the Orcom platform to the SAP platform and given that corporate decisions regarding the future technology platform have not yet been made." (Emphasis added). We do not disagree that there would be additional costs in expanding SAP capacity to handle an additional 348,000 customers.[43] However, we see no reason to unnecessarily prolong the poor service received by New Jersey-American customers from Alton. Although the Company has announced a move of the Westfield call center, we believe the Company to be truthful when it indicates that the end point of the move has yet to be determined. If this is the case, it would seem reasonable to plan a move that

[43] Direct Testimony of Dennis L. Ciemniecki, Exhibit PT-2; New Jersey-American Water Company; Haddon Heights, NJ; July 2003; Exhibit PT-2A, Schedule 1.

would properly accommodate the future work load associated with the combined NJOU's along the current Westfield model at an appropriate location within New Jersey. Notwithstanding the assertion in the response to Elizabethtown RAR-E-32 noted above, it appears clear that "American Water plans to implement a fully integrated SAP information systems solution on a national level in approximately 2007."[44] As the Company moves its New Jersey-American customers from Orcom to SAP, and as the plans for the Westfield call center move are developed, we would anticipate the evolution of circumstances in which customer service improves and in which the ratepayers are only asked to pay once for a call center and its supporting information technologies. As the Company transitions from Alton and the existing Westfield call center to a centralized New Jersey-based call center, we would expect to see an increase in labor and labor related expenses with a corresponding decrease in Service Company charges.

Q. **DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?**

A. Yes, it does.

[44] Op. Cit.; Doll; Exhibit PT-11A; p. 3.

SCHEDULE HJW-1

THE PETITION OF NEW JERSEY-AMERICAN WATER COMPANY, INC. FOR AN INCREASE IN RATES FOR WATER AND SEWER SERVICE AND OTHER TARIFF MODIFICATIONS

BPU Docket No.WR03070511
OAL Docket No.PUCRL 07279-2003N

ROUTINE & RECURRING	Test Year	Post Test Year	RPA Adjustments	RPA Construction Estimate*	Reference
Comp Soft - IP	$ 18,075	$ -	$ -	$ 18,075	
A - Mains, Hydrants, Valves, Meters- Deposit/Contribution	$ 7,435,483	$ -	$ -	$ 7,435,483	
B - Mains, Hydrants, Valves, Meters- Company Expense	$ 5,828,505	$ -	$ -	$ 5,828,505	
C - Services	$ 5,543,413	$ -	$ -	$ 5,543,413	
D - Meters	$ 4,097,172	$ 550,000	$ (550,000)	$ 4,097,172	
E - Office Furniture & Equipment	$ 292,606	$ -	$ -	$ 292,606	
F - Transportation	$ -	$ -	$ -	$ -	
G - General Equipment	$ 607,280	$ -	$ -	$ 607,280	
H - Miscellaneous	$ 3,170,024	$ -	$ -	$ 3,170,024	
TOTAL A-H	$ 26,992,558	$ 550,000	$ (550,000)	$ 26,992,558	
MAJOR PROJECTS					
Howell Surface Treatment	$ 22,312,066	$ 4,057,934	$ (4,832,934)	$ 21,537,066	
Rt 30 Absecon NJDOT Utility Relocations	$ 1,020,000	$ -	$ (195,000)	$ 825,000	
Swimming River Treatment Plant Improvements	$ 11,346,810	$ 10,653,190	$ (10,653,190)	$ 11,346,810	
Jumping Brook Treatment Plant Improvements	$ 250,000	$ 1,650,000	$ (1,650,000)	$ 250,000	
Howell to Monmouth Pipeline	$ 12,000,000	$ -	$ -	$ 12,000,000	
Southern Egg Harbor Twp SOS & Transmission Imprvts.	$ -	$ -	$ -	$ -	
Galloway Township Dist Extensions to Contaminated Areas	$ 1,510,000	$ -	$ -	$ 1,510,000	
Oxford Ground Water Facility (Design)	$ 60,000	$ -	$ (60,000)	$ -	
Jamesburg Residuals Management	$ -	$ -	$ -	$ -	
Filter Media	$ 90,813	$ -	$ -	$ 90,813	
Howell to Lakewood Transmission Improvements	$ 2,685,000	$ -	$ -	$ 2,685,000	
Oak Street Station Replacement Well	$ -	$ -	$ -	$ -	
Oceanport Creek Crossing DOT Relocation	$ 210,000	$ -	$ -	$ 210,000	
Mantoloking Booster Station/ASR	$ 190,000	$ -	$ -	$ 190,000	
East Greenwich Interconnection	$ 840,000	$ -	$ -	$ 840,000	
MTBE Treatment Mill Road and Dobbs Avenue	$ 710,000	$ -	$ (710,000)	$ -	
Riverton & Palmyra Infrastructure	$ 491,221	$ 560,779	$ (845,146)	$ 206,854	
3,700 LF 12-inch Spring Mill Road DOT Relocation	$ -	$ -	$ -	$ -	
Mantua Township Interconnection	$ 270,000	$ -	$ -	$ 270,000	
National Park Borough Interconnection	$ 175,000	$ -	$ -	$ 175,000	
West Avenue Sewer Relining	$ 300,000	$ -	$ (300,000)	$ -	
Upper Township Main Extension	$ 1,305,000	$ -	$ (1,305,000)	$ -	
Pedricktown-Center Square Road 12-inch Main	$ 209,987	$ -	$ (209,987)	$ -	
Computer Software Project (water alloc portion only)	$ 231,925	$ -	$ (231,925)	$ -	RAR-E-62
Wildwood Pipeline	$ 900,000	$ -	$ -	$ 900,000	
Acquisition: Anderson Water	$ 912,135	$ -	$ -	$ 912,135	
Acquisition: Warren County Correctional	$ 250,024	$ -	$ -	$ 250,024	
SUBTOTAL	$ 58,269,981	$ 16,921,903	$ (20,993,182)	$ 54,198,702	
TOTAL	$ 85,262,539	$ 17,471,903	$ (21,543,182)	$ 81,191,260	
Refunds	$ (3,600,000)			$ (3,600,000)	
TOTAL	$ 81,662,539	$ 17,471,903	$ (21,543,182)	$ 77,591,260	

*RPA Construction Estimate is based on Company estimates of completed construction through the end of the test year. All estimates shoud be adjusted to actual as final completed construction costs become known.

SCHEDULE HJW-2

THE PETITION OF NEW JERSEY-AMERICAN WATER COMPANY, INC. FOR AN INCREASE IN RATES FOR WATER AND SEWER SERVICE AND OTHER TARIFF MODIFICATIONS	BPU Docket No. WR03070511 OAL Docket No. PUCRL 07279-2003N

		NJAWC		EWC
Sept 2001 - Dec 2003	$	5,200,000		
Annual Average	$	2,228,571	$	300,000
Customers		372,789		190,033
Average Cost	$	5.98	$	1.58
EPA Grant		Not Applied For	$	115,000
Recommended Adjustments				
Reduction in Capital	**$**	**(115,000)**		
Total Deferred Expense	$	5,200,000		
Imputed Deferred Amount	$	1,400,000		
Amortization Period (months)		60		
Amortization Amount	$	280,000		
Requested Pro Forma Amount	$	1,040,000		
Pro Forma Adjustment	**$**	**(760,000)**		